

REMARKS

Claims 1-3, 5, 9, 17, 18, 21 and 25-29 are pending.

Claims 4, 6-8, 10-16, 19, 20 and 22-24 have been cancelled.

Claim 1 has been amended to recite that the "silver bromide content of the epitaxial portion is 50 mol% or more" finds support in the specification at page 15, lines 12-15.

Claims 2, 17 and 18 have been amended for clarity.

Support for new claim 25 can be found in claim 19.

Support for new claim 26 can be found in claim 1.

Support for new claim 27 can be found in claim 1 and in the description at page 31, lines 6-9 of the specification.

Support for new claim 28 can be found in claim 1 and in the description at page 34, lines 7-9 of the specification.

Support for new claim 29 can be found in claim 1 and in the description at page 15, lines 24-25 and page 36, lines 7-8.

No new matter has been added by way of the above-amendment.

Rejection Under 35 U.S.C. 103(a) Over Brust, Nishikawa and Wen

Claims 1-3, 5, 6, 9, 17, 18 and 21-24 are rejected under 35 U.S.C. 103(a) as being obvious over the combination of Brust (U.S. Patent No. 6,100,019) in view of Nishikawa (U.S. Patent No. 6,007,977) and Wen et al. (U.S. Patent No. 5,536,632). Applicant respectfully traverses the rejection.

The object of the present invention is to solve problems associated with high-sensitivity epitaxial emulsions, that are, the photographic property change caused by storage and the photographic property change caused by the change of processing solution composition. (See the specification, page 4, lines 2 to 5.)

Through a concerted effort, Applicant has solved these drawbacks with the emulsion of instant claim 1 having perfect epitaxial grains (hexagonal tabular grains having a total of six epitaxial junctions each existing in each of the six apex portions) and the preferable silver halide

composition of the epitaxial junction wherein the silver bromide content of the epitaxial portion defined in instant claim 1.

Brust et al. disclose that the sensitivity can be improved by forming an epitaxial junction. On the other hand, the present invention, as described above, is directed to a solution to the drawbacks of the high-sensitivity epitaxial emulsion. The object of the present invention and the structure of the present invention provided to achieve the object are not disclosed in any of the cited references. Brust et al. disclose an epitaxial emulsion having epitaxial junctions at an average of 2 to 5 corner sites of grain (column 7); however, this reference does not disclose such an emulsion that contains grains having a total of six epitaxial junctions each existing in each of the six apex portions (perfect epitaxial grains) at a ratio of 85% or more, as claimed in claim 1. Specifically, Brust et al. teach:

"In a specifically preferred form the epitaxy is limited to the portion of the edges that lie at the corners of the grains. In host grain emulsions having high bromide {111} tabular grains with hexagonal major faces, the high chloride epitaxy can be directed to from 1 to 6 [*sic*] comers of the grains, but, on average, generally from 2 to 5 corner epitaxy sites are present in the host grains." (See column 7, lines 39-45).

It is clear from this passage that Brust et al. view the epitaxy as a mixture of grains each having 1 to 6 corner epitaxy sites but that generally, this mixture includes 2 to 5 corner epitaxy sites. The term "generally" implies that a large portion of the sites have 2 to 5 corners. This fact is confirmed in a careful review of the description of the epitaxies for the exemplified embodiments of Brust et al. Accordingly, Brust et al. fail to teach or suggest that at least 85% of the grains have 6 corners as claimed in claim 1. Furthermore, Brust et al. do not enable the artisan to reach a level of at least 85% of the grains having 6 corners as claimed in claim 1. As such, Brust et al. do not render the inventive claim 1 obvious.

The Examiner cites Nishikawa et al. for teaching the length of sides of the grains and for teaching the COV of the ECD. Also, the Examiner cites Wen et al. for teaching certain bromine and chloride concentrations in the epitaxies. Since Nishikawa et al. and Wen et al. fail to teach or suggest that at least 85% of the grains have 6 corners, Nishikawa et al. and Wen et al. fail to cure

the deficiencies of Brust et al. and claim 1 (and all claims depending therefrom) are patentable over the cited references. Accordingly, withdrawal of the rejection is respectfully requested.

Applicant now comments on the patentable distinctions between new claims 26-29 and the cited references.

New Claim 26 corresponds to Claim 1 of the Amendment dated February 24, 2006.

The Examiner points out that Brust et al. describe that the pBr during emulsion preparation is adjusted to be between 3.0 and 3.8. To put it another way, the Examiner has taken the position that in Brust et al., during the process of preparing the emulsion, the pBr value is set to 3.0 to 3.8 when adding halogen ion before the formation of the epitaxial. Applicant respectfully submits that this is distinct from the invention described in instant claim 26, i.e., Brust et al. do not disclose that the pBr value of the preparation-finished emulsion after the formation of the epitaxial is set to 3.5 or less.

With respect to new claim 27, Brust et al. mention the adverse affect caused by adding sensitizing dye before formation of epitaxial in column 2. Therefore, a person having ordinary skill in the art, after reading this discussion, cannot easily achieve the invention of claim 27, in which perfect epitaxial grains are formed with use of a sensitizing dye. Thus, the description made in column 2 of Brust et al. teaches away the present invention.

With respect to new claims 28-29, Applicant respectfully submits that none of the cited references disclose "setting pBr of the emulsion during the formation of the epitaxial junction to 4.0 or more". Further, none of the cited references disclose "setting pBr of the emulsion at 40°C after the formation of the epitaxial junction to 3.5 or less".

In view of the above amendment, Applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Garth M. Dahlen, Ph.D., Esq. Reg. No. 43,575 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.


Application No. 09/778,874
Amendment dated October 17, 2006
Reply to Office Action of May 18, 2006

Docket No.: 0042-0437P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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